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10/685,851	10/15/2003	Robert L. Winter	016295.1454	8431

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EXAMINER	
MOUZON, LAJUANIA N	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	**Application No.** 10/685,851	**Applicant(s)** WINTER, ROBERT L.
	Examiner La Juania N. Mouzon	**Art Unit** 2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 15 October 2003.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 1-22 is/are rejected.
7)☐ Claim(s) 18 is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on 15 October 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/7/03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 1/31/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7 and 8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 7 and 8 recites the limitation "the second identification message" on pg. 12 line(s) 7 and 13 respectfully. There is insufficient antecedent basis, in the previous claims, for this limitation in the claim. The Examiner will define "the second identification message" as the message received by the second node for the prosecution of this application.

Claim Objections

5. Claim 18 is objected to because of the following informalities: pg. 15 line(s) 5 should read, "transmit ~~a first message~~ a first identification message, the first" according

to pg. 15 line(s) 5-7 in the claim making reference to a first identification message. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-10, and 12-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Bhat et al. (US 5,684,959).

8. In regards to claim 1 Bhat et al. discloses, a communications network, comprising:

a. a first node having a first port **(Fig. 1 #116 and Col. 4 line(s) 44-47, teach the network advisor as the first node having a first port.)**;

b. a second node having a second port, wherein the second port is connected to the first port by a communications link **(Fig. 1 #118 and Col. 3 line(s) 54-63, teach where as the second node having a second port, wherein the second port is connected to the first port by a communications link.)**; wherein:

i. the first node transmit a first identification message from the first port, the identification message addressed to an address **(Col. 2 line(s)**

10-11, teach the first node sending a first identification (id) message addressed to an address.), the identification message comprising only one frame **(Col. 4 line(s) 5-6, teach the identification message (Neighbor Information Frame, NIF) being only one frame.)**;

ii. the second node receives the identification message on the second port **(Col. 4 line(s) 52-58, implies that the second node received the id message by forwarding the requested information.)**;

iii. the second node logs the identification information **(Col. 4 line(s) 59-61 and Col. 5 line(s) 3-26, teach that the second node logs the id information.)**;

iv. and the second node delivers the identification information to an administrator, the administrator operable to determine that the first node and the second node are physically connected **(Col. 2 line(s) 12-14, teach that the second node delivers the identification information to an administrator, the administrator operable to determine that the first node and the second node are physically connected.)**.

9. In regards to claim 3 Bhat et al. discloses, wherein the node transmits the first message at an expiration of a delay **(Col. 8 line(s) 12-14, teach an expiration of a timer (delay) then the node sends the first message.)**.

10. In regards to claim 4 Bhat et al. discloses, wherein the first message is sent responsive to a user command **(Col. 4 line(s) 44-47 and 52-54, teach that the process of sending a first message is user initiated.)**.

11. In regards to claims 5, 14, and 19 Bhat et al. discloses, wherein the identification information comprises an IP address **(Col. 4 line(s) 9-16, teach the id information (NIF) comprising an IP address (Upstream Neighbor Address).)**.

12. In regards to claims 6 and 15 Bhat et al. discloses, wherein the identification information comprises a MAC address **(Col. 4 line(s) 9-16, teach the id information (NIF) comprising an MAC address (Upstream Neighbor Address).)**.

13. In regards to claim 7 Bhat et al. discloses, the first identification message further comprises statistical information about the first node and the first port **(Col. 4 line(s) 7-9, teach that every MAC (node) generates a NIF, and since the first id message is a NIF it contains statistical information as online in Col. 4 line(s) 9-16.)**; and the second identification message further comprises statistical information about the second node and the second port (**Col. 4 line(s) 9-16 and 55-59, teach that the second id message (sent from the second node) comprises statistical information about the second node and the second port.)**.

14. In regards to claim 8 Bhat et al. discloses, the first identification message further comprises characteristic information about the first node and the first port **(Col. 4 line(s)**

7-9, teach that every MAC (node) generates a NIF, and since the first id message is a NIF it contains characteristic information as online in Col. 4 line(s) 9-16.); the second identification messages further comprises characteristic information about the second node and the second port **(Col. 4 line(s) 9-16 and 55-59, teach that the second id message (sent from the second node) comprises characteristic information about the second node and the second port.)**.

15. In regards to claim 9 Bhat et al. discloses, the node is operable to receive a command **(Col. 4 line(s) 52-53, teach the node receiving a command (Start).)**; the node, in response to the command, sends the identification information to an administrator **(Col. 4 line(s) 52-59, teach in response to the command the node sending the information to the administrator.)**.

16. In regards to claim 10 Bhat et al. discloses, a method for determining a network topography **(Title)**, comprising the steps of:

c. transmitting from a first port on a first node, an identification message **(Col. 2 line(s) 10-11, teach the first node sending a first identification (id) message addressed to an address.)**, the identification message comprising only one frame and containing identification information **(Col. 4 line(s) 5-16, teach the identification message (Neighbor Information Frame, NIF) being only one frame and having id information.)**;

d. receiving on a second port of a second node, the identification message **(Col. 4 line(s) 52-58, implies that the second node received the id message by forwarding the requested information.)**;

e. logging the identification information **(Col. 4 line(s) 59-61 and Col. 5 line(s) 3-26, teach that the id information is logged.)**;

f. delivering the logged identification information to an administrator **(Col. 2 line(s) 12-14, teach delivering the identification information to an administrator.)**;

g. determining a nearest neighbor for the first node, where the nearest neighbor has received an identification message from the first node, or the nearest neighbor has received an identification message from the first node **(Col. 4 line(s) 59-61 and Col. 5 line(s) 3-26, teach that the information received from the first node is used to determine the nearest neighbor for the first node.)**.

17. In regards to claim 12 Bhat et al. discloses, waiting for the expiration of a delay before transmitting the message **(Col. 8 line(s) 12-14, teach an expiration of a timer (delay) then sending the message.)**.

18. In regards to claim 13 Bhat et al. discloses, waiting for a user command before transmitting the message **(Col. 4 line(s) 44-47 and 52-54, teach that the process of sending the message is user initiated.)**.

19. In regards to claim 16 Bhat et al. discloses, the identification information comprises statistical information **(Col. 4 line(s) 7-9, teach that every MAC (node) generates a NIF, and since the id message is a NIF it contains statistical information as online in Col. 4 line(s) 9-16.)**.

20. In regards to claim 17 Bhat et al. discloses, the identification information comprises characteristic information **(Col. 4 line(s) 7-9, teach that every MAC (node) generates a NIF, and since the id message is a NIF it contains characteristic information as online in Col. 4 line(s) 9-16.)**.

21. In regards to claim 18 Bhat et al. discloses, an information handling system, comprising:

h. a first node having a first port **(Fig. 1 #116 and Col. 4 line(s) 44-47, teach the network advisor as the first node having a first port.)**,

i. the first node operable to be connected in a computer network comprising a second node, the second node having a second port link **(Fig. 1 #118 and Col. 3 line(s) 54-63, teach where as the second node having a second port, wherein the first node is operable to be connected in a computer network comprising a second node.)**; wherein the first node is operable to:

v. transmit a first message a first identification message, the first identification messaged addressed to an address **(Col. 2 line(s) 10-11, teach sending a first identification (id) message addressed to an address.)**, the first identification message comprising only one frame **(Col.**

4 line(s) 5-16, teach the identification message (Neighbor Information Frame, NIF) being only one frame and having id information.);

vi. receive a second message on the first port, the second message addressed to the, the second message comprising identification information about a second node in the communication network **(Col. 4 line(s) 52-59, teach receiving a second message on the first port, the second message addressed to the address containing identification information about a second node in the communication network.)**, the second node having a second port **(Fig. 1 #118, teach the second node having a second port.)**, the second message comprising only one frame **(Col. 4 line(s) 5-16, teach the second message being an identification message (Neighbor Information Frame, NIF) being only one frame and having id information.)**;

vii. log the identification information **(Col. 4 line(s) 59-61 and Col. 5 line(s) 3-26, teach that the id information is logged.)**;

viii. and deliver the identification information to an administrator, the administrator operable to determine that the first node and the second node are physically connected **(Col. 2 line(s) 12-14, teach delivering the identification information to an administrator, the administrator operable to determine that the first node and the second node are physically connected.)**.

22. In regards to claim 20 Bhat et al. discloses, the administrator is operable to detect non-participating nodes in the network **(Col. 5 line(s) 16-22, teach that the administrator is operable to detect non-participating nodes in the network, by the removed MAC list**.).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

24. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

25. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhat et al. (US 5,684,959) as applied to claims 1 and 10 above, and further in view of Raab et al. (US 5,850,397).

26. In regards to claim 2 Bhat et al. do not teach, wherein the address is a multicast address.

27. In the same field of endeavor Rabb et al. teach that in a Fiber Distributed Data Interface (FDDI) network a “Hello” message (Hello messages are multicast on a predetermined multicast address and are used to advertise that the device sending the message exists (Col. 10 line(s) 14-16).) can be used to discover the topology of the network **(Col. 10 line(s) 43-56)**.

28. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bhat et al. method for determining topology of a network with Raab et al. teaching as discussed above to allow for the capability of discovering both the logical and physical topology of a FDDI network to give the network administrators a clear and accurate view of the underlying physical topology of a global network.

29. In regards to claim 11 Bhat et al. do not teach, the identification message is addressed to a multicast address.

30. In the same field of endeavor Rabb et al. teach that in a Fiber Distributed Data Interface (FDDI) network a “Hello” message (Hello messages are multicast on a predetermined multicast address and are used to advertise that the device sending the message exists (Col. 10 line(s) 14-16).) which is the id message that is addressed as to a multicast address, to discover the topology of the network **(Col. 10 line(s) 43-56)**.

31. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bhat et al. method for determining topology of a network with Raab et al. teaching as discussed above to allow for the capability of discovering both the logical and physical topology of a FDDI network to give the network administrators a clear and accurate view of the underlying physical topology of a global network.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liang et al. (US 5,732,086) system and method for determining the topology of a reconfigurable multi-nodal network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to La Juania N. Mouzon whose telephone number is 571-270-3045. The examiner can normally be reached on Monday - Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LNM

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